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Thoughts and opinions of an elderly Mechanical Engineer on the subject of nuclear electric power generating stations.

I have been following the subject of nuclear electric power generating plants since 1948. I wrote my graduating thesis on the then known information about such plants. It sounded like a good idea then and it still seems to me that these nuclear plants are the best source of large amounts of energy for our countries needs. Hydro electric plants are also a great source of non-polluting energy but certain environmental groups are strongly against the required dams. Persons like myself do not have the resources to prove anything that I want to tell you. I can only say that my interest in nuclear power plants, my education, 6 years of work at the nuclear rocket test site and many other years of work in the petroleum industry and electrical field make me reasonably qualified to have opinions on the things I am going to discuss.

For all of these years the anti nuclear people have been doing every thing within their power to stop the construction of nuclear plants-----and you can not blame them-they have too much too lose. If I was the owner of a coal mine, or owned stock in a railroad hauling vast amounts of coal, a coal miner or coal miners union official, a gas well or gas transmission line owner, an official of a crude oil producing nation I would feed all of the money I could into any group I could get to promote anti-nuclear propaganda. The antinuclear groups have been very successful because the news media is ever so happy to print any article about nuclear things because it sells papers. Because of this constant barrage of anti nuclear unscientific propaganda the general public is now afraid of nuclear plants. No politician in his right mind will say anything pro-nuclear if he wants to get re-elected. I believe that the tremendous power and money behind these groups has our Nevada politicians spending multi millions of our tax dollars to hire lawyers to block the use of Nevada facilities for any form of power plant support(Yucca Mountain). The Yucca mountain project will be safe, a boon to the Nevada economy and to our nation. It is the right thing to do. Further, a nuclear reprocessing plant needs to be built adjacent to the Yucca Mountain plant to make our nuclear system complete.

These nuclear powered, electric generators are safe, as proven by 4 plus decades of operation by over 100 plants without a single serious nuclear related accident and during this time have produced millions of kilowatts of low cost power. Over and over, law suits submitted in an effort to stop the use of nuclear plants, have been proven wrong. The anti nuclear groups with their vast amounts of money ,are now working on the idea that we can not transport or store nuclear wastes safely. Again, I believe that these two ideas will be shown to be illogical, unscientific and simply propaganda ideas to try to stop nuclear plants ——as the hundreds of ideas submitted in the past have been. Hitler's propaganda chief, many years ago, stated that if you tell people a lie enough times, they will begin to believe it. I am of the opinion that has happened here.

I might add that the anti nuclear groups are no dummies. Years ago, they got a presidential executive order made that we could not build a reprocessing plant. I am told that you can separate out those parts that need careful storage and which would reduce the necessary storage in Yucca Mt. down to approximately 5 percent of its present volume making Yucca good as a repository for over 1000. years.

Let's go over the advantages of nuclear plants as opposed to the hydrocarbon burning plants now producing the majority of our electricity:

1 There is practically no air or ground pollution. Hydrocarbon plants produce vast amounts of combustion waste. A recent study stated that the increased injection of carbon dioxide and other greenhouse gases into the atmosphere could eventually eliminate Greenlands large ice-sheet and cover costal communities with a potential 23 feet of water. 2 The cost of electricity will be greatly reduced. In 1992 I read an article that Florida Power and Light had one of the lowest electric rates in the U,S. mainly because it had nuclear plants producing a large percent of its total use-plants in conjunction with their coal and oil burning plants.

These low costs can be made even lower if congress will pass laws to perfect a standard plant design that meets all of the environmental and legal rules so that new plants can be built without being tied up in great numbers of frivolous law suits that stop construction. It was these types of work stoppages that made existing plants cost 2 and 3 times what they should have.

- 3 With a nuclear plant ,electric production costs are more stable and generally not affected by weather, transportation or wildly fluctuating fuel costs.
- 4 Low electric costs will encourage the use of electricity where oil and natural gas is now being used. This will reduce the amount of crude oil we need to import and reduce our great balance of payments deficit which now runs about 20 to 30 BILLION dollars per month. Low energy costs will permit our industries to better compete with foreign low labor costs which are now causing so much "out sourcing" of manufacturing and jobs.
- 5 We need to save as much as possible of this finite supply of oil and gas. These two natural occurring products have many other uses to mankind in the chemical industries...
- --uses much better than burning it and producing carbon dioxide to pollute the air.
- 6 Natural gas is now being used extensively to heat our homes. This is a much better use of it than being burned to produce electricity. Low costs will encourage more people to heat their homes with electricity.
- 7 Low electricity costs and high gasoline costs will promote the building of, and evolution of electric or hydrogen-fuel cell automobiles, a trend that will also reduce our dependence on the importation of crude oil.
- 8 Abundant low cost electricity would encourage the electrification of some railroads as some European countries have done.
- 9 These plants will reduce the cost to our population for health matters caused by air pollution.
- 10 Clean air will also allow plants to grow healthier.

11 Waste heat from nuclear power plants near the ocean will permit the distillation of sea water to produce fresh water, a very growing need.

12 A plentiful supply of low cost power would permit pumping vast amounts of water from areas of over supply to places that can effectively use urgently needed water. Examples: Irrigation for farming, --- reclaiming wet lands. --- reforestation, --- forest fire suppression, --- help in flood control etc....

Water is essential to life, and increasing the pragmatic use of it would benefit everyone... Increasing areas of plant life, means more carbon dioxide removed from the air...

Our world is presently being held hostage by the hydrocarbon industry and we need to slowly begin moving into the nuclear age to enhance the strength of our country and the quality of human, animal, and plant life. The vast fallout in economic stimulation, job creation, and general improvement in our environment, should make a slow switch to inexpensive, clean power something we should insist on...

Artemon J.---- April. 2004

